

Amendment and Response to Office Action
U.S. Serial No. 10/619,380
Inventor: Whitaker et al.
Filed: July 14, 2003
Attorney Docket No: 281-398.01

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A blood pressure measurement apparatus configured to operate according to an oscillometric method of measuring blood pressure, comprising:
 - an inflatable chamber, said inflatable chamber operable to be inflated during an inflation interval and deflated during a deflation interval;
 - a sensor coupled to said inflatable chamber, said sensor configured to measure a signal according to the oscillometric method of measuring blood pressure, said signal comprising information indicative of a blood pressure of a vertebrate;
 - a control module configured to receive as input at least a portion of said signal from said sensor, and to generate as output a control signal having a selected one of a plurality of values responsive to said input;
 - a first analysis module, said first analysis module configured to analyze said signal during [[an]] said inflation interval of said inflatable chamber at a rate greater than 3 mmHg per second before said inflatable chamber is fully inflated to extract from said signal [[said]] a systolic blood pressure and a diastolic blood pressure of said vertebrate according to the oscillometric method of measuring blood pressure; and
 - a second analysis module, said second analysis module selectively operative in response to one of said plurality of values of said control signal, said second analysis module configured to analyze said signal during said deflation interval of said inflatable chamber to extract from said signal said blood pressure of said vertebrate according to the oscillometric method of measuring blood pressure;

whereby said apparatus completes said measurement of said blood pressure of said vertebrate using at least one of said first analysis module and said second analysis module.
2. (Original) The apparatus of claim 1, wherein said deflation interval comprises at least one step deflation interval.

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3. (Original) The apparatus of claim 1, wherein said plurality of control signal values comprises a first value that inhibits operation of said second analysis module and a second value that activates operation of said second analysis module.
4. (Canceled)
5. (Currently Amended) The apparatus of claim [[4]] 1, further comprising a reporting module configured to report at least one of said systolic blood pressure and said diastolic blood pressure.
6. (Currently Amended) The apparatus of claim 1, further comprising a neonate sensor module configured to [[sense]] represent whether said vertebrate is a neonate vertebrate.
7. (Original) The apparatus of claim 6, wherein in response to a positive determination that said vertebrate is a neonate vertebrate, said apparatus completes a blood pressure measurement of said neonate vertebrate using said second analysis module.
8. (Original) The apparatus of claim 7, wherein said signal analyzed by said second analysis module during said deflation interval comprises a signal occurring during at least one step deflation interval.
9. (Original) The apparatus of claim 7, wherein said blood pressure of said neonate vertebrate comprises at least one of a systolic blood pressure and a diastolic blood pressure.
10. (Original) The apparatus of claim 9, further comprising a reporting module configured to report at least one of said systolic blood pressure and said diastolic blood pressure.

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11. (Previously Presented) The blood pressure measurement apparatus of claim 1, further comprising:
 - a motion detection module configured to receive as input at least a portion of said signal from said sensor, said motion detection module configured to detect a secondary motion of said vertebrate distinct from motion associated with said signal comprising information indicative of a blood pressure of a vertebrate and configured to communicate a value to said first analysis module; whereby, in the event that said value of said secondary motion detected by said detection module is below a predetermined value, said apparatus completes a blood pressure measurement of said vertebrate using said first analysis module.
12. (Canceled)
13. (Currently Amended) The apparatus of claim [[12]] 11, further comprising a reporting module configured to report at least one of said systolic blood pressure and said diastolic blood pressure.
14. (Original) The apparatus of claim 11, wherein said motion detection module is configured to provide a warning, said warning being generated in response to said secondary motion that exceeds said predetermined value.
15. (Original) The apparatus of claim 14, further comprising an announcement module that announces said warning.
16. (Original) The apparatus of claim 15, wherein said announcement is a visual announcement.

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17. (Original) The apparatus of claim 15, wherein said announcement is an audible announcement.
18. (Original) The apparatus of claim 15, wherein said blood pressure measurement is completed if said secondary motion falls below said predetermined value within a defined time period after said announcement of said warning.
19. (Canceled)
20. (Currently Amended) The apparatus of claim [[19]]15, further comprising a reporting module configured to report at least one of said systolic blood pressure and said diastolic blood pressure.
21. (Previously Presented) The apparatus of claim 11, wherein said second analysis module is operative in the event that said value of said secondary motion detected by said motion detector module is at least equal to said predetermined value; whereby said apparatus completes said measurement of said blood pressure of said vertebrate using said second analysis module.
22. (Original) The apparatus of claim 21, wherein said deflation interval comprises at least one step deflation interval.
23. (Currently Amended) The apparatus of claim 21, further comprising a neonate sensor module configured to [[sense]] represent whether said vertebrate is a neonate vertebrate.
24. (Original) The apparatus of claim 23, wherein in response to a positive determination that said vertebrate is a neonate vertebrate, said apparatus completes said blood pressure measurement of said neonate vertebrate using said second analysis module.

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25. (Canceled)
26. (Currently Amended) The apparatus of claim [[25]]23, further comprising a reporting module configured to report at least one of said systolic blood pressure and said diastolic blood pressure.
27. (Currently Amended) [[A]] An oscillometric blood pressure measurement method, comprising the steps of:
 - providing an inflatable chamber, said inflatable chamber operable to be inflated during an inflation interval and deflated during a deflation interval;
 - measuring a signal comprising information indicative of a blood pressure of a vertebrate, said signal generated according to an oscillometric blood pressure measurement method;
 - analyzing said signal during an inflation of said inflatable chamber at a rate greater than 3 mmHg per second before said inflatable chamber is fully inflated to extract from said signal [[said]] a systolic blood pressure and a diastolic blood pressure of said vertebrate; and
 - if necessary, responsive to a control signal, analyzing said signal during said deflation interval of said inflatable chamber to extract from said signal said blood pressure of said vertebrate according to an oscillometric blood pressure measurement method;whereby a measurement of said blood pressure of said vertebrate according to an oscillometric blood pressure measurement method is accomplished.
28. (Original) The method of claim 27, wherein said deflation interval comprises at least one step deflation interval.
29. (Canceled)

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30. (Currently Amended) The method of claim [[29]] 27, further comprising reporting at least one of said systolic blood pressure and said diastolic blood pressure.
31. (Currently Amended) The method of claim 27, further comprising the step of [[sensing]] representing whether said vertebrate is a neonate vertebrate.
32. (Original) The method of claim 31, wherein in response to a positive determination that said vertebrate is a neonate vertebrate, said method completes a blood pressure measurement of said neonate vertebrate by analyzing said signal during said deflation interval.
33. (Original) The method of claim 32, wherein said signal analyzed during said deflation interval comprises a signal occurring during at least one step deflation interval.
34. (Canceled)
35. (Currently Amended) The method of claim [[34]] 32, further comprising reporting at least one of said systolic blood pressure and said diastolic blood pressure.
36. (Previously Presented) The blood pressure measurement method of claim 27, further comprising the step of:
detecting a secondary motion of said vertebrate distinct from said motion
comprising information indicative of said blood pressure;
whereby, in the event that said secondary motion is below a predetermined value,
said method completes said blood pressure measurement.
37. (Canceled)

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38. (Currently Amended) The method of claim [[37]] 36, further comprising reporting at least one of said systolic blood pressure and said diastolic blood pressure.
39. (Original) The method of claim 36, wherein said motion detection module is configured to provide a warning, said warning being generated in response to said secondary motion that exceeds said predetermined value.
40. (Original) The method of claim 39, further comprising an announcement module that announces said warning.
41. (Original) The method of claim 40, wherein said blood pressure measurement is completed if said secondary motion falls below said predetermined value within a defined time period after said announcement of said warning.
42. (Canceled)
43. (Currently Amended) The method of claim [[42]] 41, further comprising reporting at least one of said systolic blood pressure and said diastolic blood pressure.
44. (Original) The method of claim 36, further comprising the steps of:
in the event that said value of said secondary motion detected by said motion detector module is at least equal to said predetermined value, analyzing said signal during said deflation interval of said inflatable chamber to extract from said signal said blood pressure of said vertebrate;
whereby said blood pressure of said vertebrate is determined.
45. (Original) The method of claim 44, wherein said deflation interval comprises at least one step deflation interval.

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46. (Currently Amended) The method of claim 44, further comprising the step of [[sensing]] representing whether said vertebrate is a neonate vertebrate.
47. (Original) The method of claim 46, wherein in response to a positive determination that said vertebrate is a neonate vertebrate, said method determines said blood pressure of said neonate vertebrate.
48. (Original) The method of claim 47, wherein said blood pressure of said neonate vertebrate comprises at least one of a systolic blood pressure and a diastolic blood pressure.
49. (Original) The method of claim 48, further comprising reporting at least one of said systolic blood pressure and said diastolic blood pressure.
50. (New) The apparatus of claim 6, wherein said neonate sensor module configured to represent whether said vertebrate is a neonate vertebrate comprises a neonate sensor module configured to deduce from a command issued by an operator whether said vertebrate is a neonate vertebrate.
51. (New) The apparatus of claim 6, wherein said neonate sensor module configured to represent whether said vertebrate is a neonate vertebrate comprises a neonate sensor module configured to deduce from data in a database whether said vertebrate is a neonate vertebrate.
52. (New) The apparatus of claim 23, wherein said neonate sensor module configured to represent whether said vertebrate is a neonate vertebrate comprises a neonate sensor module configured to deduce from a command issued by an operator whether said vertebrate is a neonate vertebrate.

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53. (New) The apparatus of claim 23, wherein said neonate sensor module configured to represent whether said vertebrate is a neonate vertebrate comprises a neonate sensor module configured to deduce from data in a database whether said vertebrate is a neonate vertebrate.
54. (New) The method of claim 31, wherein the step of representing whether said vertebrate is a neonate vertebrate comprises the step of an operator issuing a command.
55. (New) The method of claim 31, wherein the step of representing whether said vertebrate is a neonate vertebrate comprises the step of deducing from data in a database whether said vertebrate is a neonate vertebrate.
56. (New) The method of claim 46, wherein the step of representing whether said vertebrate is a neonate vertebrate comprises the step of an operator issuing a command.
57. (New) The method of claim 46, wherein the step of representing whether said vertebrate is a neonate vertebrate comprises the step of deducing from data in a database whether said vertebrate is a neonate vertebrate.